

CLAIMS

1. A receiver circuit, comprising:

a sampler, for taking digital samples of a received signal, said received signal including at least a first portion and a second portion which repeats the content of the first portion after a repeat interval;

a processing device, for processing the digital samples on the basis of an assumed position of the first and second portions in the received signal;

at least one correlator for measuring:

a first correlation between a first group of samples including at least samples around the beginning of the first portion of the signal, and a second group of samples including at least samples around the beginning of the second portion of the signal; and

a second correlation between a third group of samples including at least samples around the end of the first portion of the signal, and a fourth group of samples including at least samples around the end of the second portion of the signal;

means for comparing the measured first and second correlations to produce a comparison output; and

means for determining the assumed position of the first and second portions on the basis of the comparison output in order to tend to equalize the first and second correlations.

2. A receiver circuit as claimed in claim 1, wherein the first, second, third and fourth group of samples each have the same length as the first and second portions of the signal.

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3. A receiver circuit as claimed in claim 2,
wherein the first group of samples is offset relative to
the first portion of the signal, the second group of
samples is offset relative to the second portion of the
5 signal, the third group of samples is offset relative to
the first portion of the signal, and the fourth group of
samples is offset relative to the second portion of the
signal, the durations of said offsets all being equal.

4. A receiver circuit as claimed in claim 3,
10 wherein the durations of said offsets are all equal to
two sample periods.

5. A receiver circuit as claimed in claim 1,
wherein the first group of samples includes a
predetermined number of samples at the beginning of the
15 first portion of the signal, the second group of samples
includes a predetermined number of samples at the
beginning of the second portion of the signal, the third
group of samples includes a predetermined number of
samples at the end of the first portion of the signal,
20 and the fourth group of samples includes a predetermined
number of samples at the end of the second portion of
the signal.

6. A method for receiving signals, the method
comprising:

25 taking digital samples of a received signal, said
received signal including at least a first portion and a
second portion which repeats the content of the first
portion after a repeat interval;

30 processing the digital samples on the basis of an
assumed position of the first and second portions in the
received signal;

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measuring a first correlation between a first group of samples including at least samples at the beginning of the first portion of the signal, and a second group of samples including at least samples at the beginning of the second portion of the signal; and

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measuring a second correlation between a third group of samples including at least samples at the end of the first portion of the signal, and a fourth group of samples including at least samples at the end of the second portion of the signal; comparing the measured first and second

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correlations to produce a comparison output; and

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determining the assumed position of the first and second portions on the basis of the comparison output in order to tend to equalize the first and second correlations.

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7. A method as claimed in claim 6, wherein the first, second, third and fourth group of samples each have the same length as the first and second portions of the signal.

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8. A method as claimed in claim 7, wherein the first group of samples is offset relative to the first portion of the signal, the second group of samples is offset relative to the second portion of the signal, the third group of samples is offset relative to the first portion of the signal, and the fourth group of samples is offset relative to the second portion of the signal, the durations of said offsets all being equal.

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9. A method as claimed in claim 8, wherein the durations of said offsets are all equal to two sample periods.

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10. A method as claimed in claim 6, wherein the first group of samples includes a predetermined number of samples at the beginning of the first portion of the signal, the second group of samples includes a
5 predetermined number of samples at the beginning of the second portion of the signal, the third group of samples includes a predetermined number of samples at the end of the first portion of the signal, and the fourth group of samples includes a predetermined number of samples at
10 the end of the second portion of the signal.

11. A receiver circuit, for processing a received signal, said received signal including at least a first portion and a second portion which repeats the content of the first portion after a repeat interval, the
15 receiver comprising at least one correlator, for calculating an early correlation and a late correlation, the early correlation being measured between samples ahead of an assumed first portion start position and ahead of an assumed second portion start position, and
20 the late correlation being measured between samples behind an assumed first portion end position and behind an assumed second portion end position, and revising the assumed start and end positions on the basis of a calculated difference between the early correlation and
25 the late correlation.

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